SEXUAL DIMORPHISM IN A SPECIES OF *SCIARA*.

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At the end of February of the present year, I received a number of Sciarid larvæ which had been found by Miss F. Collins in her garden at Clapham, near Worthing, Sussex. The larvæ were practically full grown when received; they were about 8 mm. long, yellowish in colour, and with a double row of oval lemon-yellow granules along the dorsal surface arranged in groups of six on each of the last six or seven abdominal segments. The larvæ pupated soon afterwards, and spent nearly three weeks in the pupal state, at the end of which time I was fortunate enough to hatch out some flies, 4 ♂ and 8 ♀. It was at once noticeable that all the males were small spidery creatures with reduced wings and quite incapable of flight, but as there was a possibility that out of so small a number, all the males might have happened to be cripples, I decided to wait until further evidence was forthcoming before deciding that this was a peculiar case of sexual dimorphism.

The additional evidence was available much sooner than was to be expected, for to my great surprise and pleasure, Mr. W. L. Distant brought me a lot of exactly similar larvæ on April 23rd. These were dug up by Mr. Distant in his garden at Norwood, where they were feeding in immense numbers on decaying woody roots; Mr. Distant told me that he could easily have collected a gallon of them! These larvæ again were practically full grown. Before pupating they formed into a procession and explored the boundaries of their tin, but finding themselves unable to migrate, or perhaps thinking they had done so, they all pupated in a mass, forming themselves a common covering of silk and minute particles of rotten wood. After a fortnight spent in the pupal stage, the flies emerged about May 20th, to the number of about 50 ♂ and 150 ♀. As was the case with the original specimens from Sussex, the males were all much smaller than the females and with reduced wings; moreover, the wings were not only reduced in size, but the neuration was degraded in an almost constant manner. The males were absolutely incapable of flight; the females, though they could fly when compelled to do so by being dropped, never attempted of their own accord to use their wings, the disinclination probably being due to the size and weight of the abdomen. The wings of the male, in life, were about two-thirds as long, those of the female about the same length, as the abdomen; after death the

male abdomen shrivels somewhat. It may be mentioned that the eggs appear to be laid in long strings; some females were found dead with strings of 20—30 bright yellow eggs protruding from the abdomen. The male and female pupæ can readily be distinguished by their size and also by the length of their wing cases; these are much shorter (relative to the length of the leg-cases) in the male than in the female.

Although this is a remarkable instance of sexual dimorphism, owing to the reduction of the wings occurring in the male and not the female sex, it is not the only one on record in the genus *Sciara*. Lundbeck describes a species (*S. biformis*) from Greenland, in which the male is smaller than the female and has the wings abbreviated, but in *S. biformis* the neuration is not so degraded as in the present species. Kieffer describes a more normal case of dimorphism in *S. membranigera*, in which the male has normal wings, and the female has them rudimentary, without any distinct venation. In other genera of the Sciaridæ (*Epidapus*, *Bradysia*, *Peyerimhoffia*) various forms of reduction of the wings occur. One of the most interesting cases is that of *Peyerimhoffia (Epidapus) scabiei*, Hopkins, in which the female is destitute of wings and halteres, while there are two forms of the male, one with abbreviated and the other with normal wings.

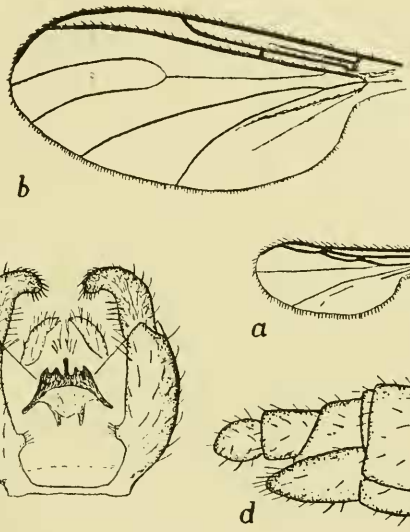
I have with some reluctance come to the conclusion that our species is undescribed. Both by Winnertz' monograph and Grzegorzek's table (Berl. ent. Zeitschr., 1884, p. 49) it would appear to lie nearest to *S. virgultorum*, Winn., but that species has lighter legs, and moreover its male, which has been subsequently described by Strobl (Wien. ent. Zeit., XIX, p. 96), has normal wings. *S. biformis*, Lundb., differs in several details of coloration; the male has different venation, and the female has hyaline wings. The present species belongs to *Sciara* in the restricted sense: it has three-jointed palpi, face not produced, eyes slightly hairy, simple claws and typical venation in the female. I therefore describe the species as follows:—

Sciara semialata, sp. nov. Body, ♂, length 1·8–2 mm.; ♀, 3·0–3·3 mm.; wing length, ♂, 1·4 mm.; ♀, 3·0 mm. Division II, A. 1. B. b of Winnertz.

Whole insect black, except for the base of the halteres, and (in life) the sides and incisures of the abdomen, which are yellowish; and the front femora and coxæ, which are dark brown. The thorax is distinctly, but not conspicuously, shining. The wings, especially in the female, are smoky black, darker towards the anterior margin; in the male a little shorter than the short, thick abdomen; in the female as long as the more elongated abdomen. Venation as in the figures: in the female R^1 ends very slightly but constantly before the base of the fork of the media; the "cross-vein" may be exactly in the

middle of the first longitudinal (R^1), or very slightly beyond it, and in very rare instances the base of the upper branch of the media is defective; in the male the media is invariably simple, and Rs always touches the apex of R^1; the cubitus may be entirely simple or may have the lower branch more or less present, but never complete. The antennæ in the female are slightly shorter, in the male a little longer, than the head and thorax together.

Type in the British Museum, from Norwood, Surrey (*W. L. Distant*); paratypes in the British Museum, the Cambridge Museum, and in Mr. J. E. Collin's collection.



SCIARA SEMIALATA, sp. n.

(a) wing of ♂, × 18; (b) wing of ♀, × 18; (c) hypopygium of ♂ from beneath, × 66; (d) apex of ♀ abdomen from the side, × 66.

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Note on the Chrysomela sanguinolenta and marginalis of British collections.— My friend Dr. Bergroth has just called my attention to a paper by Mr. Tor Helliesen on *Chrysomela sanguinolenta*, L., and its allies, written in Esperanto and published in the "Aarshefte" of the Stavanger Museum for 1911 (issued in 1912), pp. 1–16, pls. i–iii. This paper affects the names or synonymy of our two British forms, and an extract from it will interest Coleopterists. The four species recognised are: 1, *sanguinolenta*, L., Thoms. (*nec* Küster, Weise); 2, *gypsophilæ*, Küst. (with vars *gaubili*, Luc., and *lucidicollis*, Küst.); 3, *küsteri*, n.n. (= *sanguinolenta*, Küst., Weise); 4, *crassicornis*, n. sp. No. 1 is the insect known to us under the name *marginalis*, Duft. (*distinguenda*, Steph.); Nos. 2, 3 do not, I believe, occur in Britain; No. 4, *crassicornis*, is the *C. sanguinolenta*